

# IEEE Magnetics Society - Italy Chapter 2018 Annual Meeting

June 3<sup>rd</sup>-6<sup>th</sup>, 2018, Gioiosa Marea (Messina), Italy

## PROGRAM

### DAY 1 – Sunday 3<sup>rd</sup>

18:00 - 19:00 WELCOME RECEPTION AND DINNER

### DAY 2 – Monday 4<sup>th</sup>

8:40 *OPENING* (BRUNO AZZERBONI, GIOVANNI FINOCCHIO, RICCARDO TOMASELLO)

9:00 - 9:30 *Magnetic signature of ships using tensor gradiometry onboard Autonomous Underwater Vehicles* - **Massimo Chiappini**, INGV, Italy

#### Terahertz Modeling (Chair Giulio Siracusano)

9:30 - 10:00 *Review of antiferromagnetic spintronics: spin-current induced dynamics of antiferromagnets vs ferromagnets* - **Helen Gomonay**, University of Mainz, Germany

10:00 - 10:20 *THz dynamics of the magnetization in a spintronic antiferromagnetic oscillator*  
**Vito Puliafito**, University of Messina, Italy

10:20 - 10:40 *Terahertz nano-communications in human tissues: a survey and new outlook*  
**Luciano Mescia**, Polytechnical University of Bari, Italy

10:40 - 11:10 *COFFEE BREAK*

#### Magnetic Hysteresis (Chair Ermanno Cardelli)

11:10 - 11:30 *Finite element method and magnetic hysteresis modeling*  
**Antonio Laudani**, University of Roma3, Italy

11:30 - 11:50 *Towards online evaluation of Goss-texture quality in laminated ferromagnetic alloys*  
**Simone Antonio Quondam**, University of Perugia, Italy

#### Tutorial

11:50 - 12:10 *Signal processing for scientific data analyses*  
**Giulio Siracusano**, University of Catania, Italy

12:10 *LUNCH*

#### Special Session: Seismic Metamaterials

14:30 - 15:00 **Massimo Chiappini**, INGV, Italy - **Vincenzo Vespri**, University of Firenze, Italy

15:00 - 15:20 **Francesca Garesci**, University of Messina, Italy

15:20 - 15:40 **Giulio Ventura**, Polytechnical University of Torino, Italy

15:20 - 15:40 **Angela Sciammetta**, INDAM, Italy

15:40 - 16:00 **Roberto Zivieri**, INDAM, Italy

Website: <http://portale.unime.it/nanodiodo/annual-meeting-2018/>

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DAY 3 – Tuesday 5<sup>th</sup>

8:40 - 9:10 *Spinterface: crafting spintronic at the molecular scale*  
**Marta Galbiati**, University of Valencia, Spain

### Micromagnetics and Spintronics (Chair Vito Puliafito)

9:10 - 9:40 *Novel micromagnetic approach for self-consistent thermomagneto dynamics modeling*  
**Oksana Fesenko**, CSIC - ICMM Madrid, Spain

9:40 - 10:10 *Mutual synchronization in chains and arrays of spin Hall nano-oscillators*  
**Johan Åkerman**, University of Gothenburg, Sweden

10:10 - 10:30 *Thermodynamic description of the effect of temperature on a magnetic skyrmion and skyrmion entropy calculation* - **Roberto Zivieri**, INDAM, Italy

10:30 - 10:50 *Hybrid MTJ/CMOS circuit: design and simulation*  
**Marco Lanuzza**, University of Calabria, Italy

10:50 - 11:10 *COFFEE BREAK*

### Distributed Networks (Chair Roberto Zivieri)

11:10 - 11:30 *Characteristics and criteria for the design of distributed measurement systems*  
**Sergio Rapuano**, University of Sannio, Italy

11:30 - 11:50 *Mathematical tools to extract features from active and passive distribution networks* -  
**Silvano Vergura**, Polytechnical University of Bari, Italy

### Tutorial

11:50 - 12:10 *Science for security* - **Stefano Chiappini**, INGV, Italy

12:10 *LUNCH*

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DAY 4 – Wednesday 6<sup>th</sup>

8:40 - 9:10 *On chip magnetophoretic detection of malaria infected red blood cells*  
**Riccardo Bertacco**, Polytechnical University of Milano, Italy

### Magnetic Materials and Devices (Chair Riccardo Tomasello)

9:10 - 9:40 *Spin wave instabilities in spin-torque nano-oscillators*

**Massimiliano D'Aquino**, University of Napoli Parthenope, Italy

9:40 - 10:10 *Magnetisation reversal by field dependent Magnetic Force Microscopy technique*

**Paola Tiberto**, INRIM, Torino, Italy

10:10 - 10:40 *Exchange coupling in IrMn/NiFe films and nanodots: the effect of the antiferromagnetic spin correlation - Lucia Del Bianco*, University of Ferrara, Italy

10:40 - 11:10 *Interfacial Dzyaloshinskii-Moriya interaction studied by Brillouin light scattering*  
**Silvia Tacchi**, CNR-IOM, Italy

### Tutorial

11:10 - 11:30 *Variational approach to differential problems*

**Giusy D'Agui**, University of Messina, Italy

11:30 *CLOSING*



**Farnesina**  
Ministero degli Affari Esteri  
e della Cooperazione Internazionale



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